

Laboratory/work area: **Wet laboratory**

Activity: **Pore etching**



D M S O

Dimethyl sulfoxide

Dangerous for humans and environment

Acute toxicity

LD₅₀ (dermal, rat): 40000 mg/kg.
LD₅₀ (oral, rat): 14500 mg/kg.

Specific symptoms in animal studies:
Eye irritation test (rabbit): Slight irritations.
Skin irritation test (rabbit): Slight irritations.

Subacute to chronic toxicity

Sensitization:
Sensitization test (guinea pig): negative. .

No indication of carcinogenic activity.
No indication of mutagenic activity.
Bacterial mutagenicity: Ames test: negative.
No teratogenic effect in animal experiments.

Abiotic degradation:
Rapid degradation. (air)

Biologic degradation:
Biodegradation: 3.1 % /14 d.
Biologically not readily degradable.

Behavior in environmental compartments:
Distribution: log p(o/w): -1.35 (experimental).
No bioaccumulation is to be expected (log P(o/w) <1).

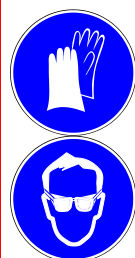
Ecotoxic effects:
Biological effects:
Fish toxicity: *L. macrochirus* LC₅₀: 33500 mg/l /48 h.
Bacterial toxicity: activated sludge EC₅₀: 10-100 mg/l /30 min.

Safeguard and directives

Person-related precautionary measures:
Avoid substance contact. Do not inhale vapours/aerosols.

Environmental-protection measures:
Do not allow to enter sewerage system.

Procedures for cleaning / absorption:
Take up with liquid-absorbent material (e.g. Chemisorb®). Forward for disposal. Clean up affected area.



Personal protective equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection: required when vapours/aerosols are generated. Filter A (acc. to DIN 3181) for vapours of organic compounds.

Eye protection: required

Hand protection: required

Industrial hygiene:
Change contaminated clothing. Apply skin-protective barrier cream. Wash hands after working with substance.





Fire department 0 / 112

Behavior in the case of danger



Emergency 0 / 19222



Suitable extinguishing media:
foam, powder, water.

Special risks:

Combustible. Vapours heavier than air. Formation of hazardous combustion gases or vapours possible in event of fire. The following may develop in event of fire: sulfur oxides.

Special protective equipment for fire fighting:

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Other information:

Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

First assistance

First assistant: (J. Bahr, Tel.: 6183):



After inhalation: fresh air.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After eye contact: rinse out with plenty of water with the eyelid held wide open.

After swallowing: make victim drink plenty of water. Subsequently administer: activated charcoal (20 - 40 g in 10% slurry). Laxative: Sodium sulfate (1 tablespoon/1/4 l water). Call in physician.

Adequate disposal

Dispose remainders, empty bundles as special refuse (contact: Kai Rath).

Signature of the responsible person: